

The transducer 102 is formed in a series of layers on a substrate 107, beginning with a first magnetically permeable shield layer 110. For the situation in which the shield is made of Permalloy, the shield may have a thickness of about  $2\mu\text{m}$  and a width that is several times larger than its thickness. A first amagnetic (non-ferromagnetic), electrically insulating read gap layer is formed on the first shield 110 to separate the first shield from a MR sensor 112. A second amagnetic, electrically insulating read gap layer is formed on the MR sensor 112 to separate the MR sensor from a second shield 115. The read gap layers may have a thickness in a range between about  $50\text{\AA}$  and  $400\text{\AA}$ , and may be formed of a variety of materials including Alumina, DLC, SiC and  $\text{SiO}_2$ . Second shield 115 also serves as a first pole-tip of a magnetically permeable yoke that encircles a conductive coil, not shown in this figure, the first pole-tip 115 being separated from the trailing pole-tip 105 by an amagnetic, electrically insulating recording gap 118, which may have a thickness on the order of  $200\text{nm}$ . The trailing pole-tip 105 is encased with an amagnetic, electrically insulating layer defining a trailing end 138 of head 100. In this embodiment of a merged MR and inductive head, reading of signals is performed by the MR sensor 112, while writing of patterns on the media is performed by magnetic flux spreading out from the gap 118 while travelling between the pole-tips 105 and 115. The width  $W_1$  of the trailing pole-tip 105 corresponds to a width of a data track recorded on the medium, and may be more or less than the gap 118 between the pole-tips 105 and 115. Although difficult to depict in this figure, the MR sensor 112 may have a width that is less than  $W_1$ , and a thickness that is even less.

Please replace the paragraph beginning on page 12, line 14 with the following paragraph, a Marked-Up copy of which is separately enclosed:

Referring again to FIG. 3, atop layer 117 and the exposed pole-tip 105 a second magnetically permeable yoke layer 130 is formed by sputtering and/or electroplating. The mask through which the yoke was formed has an edge 132 that overlaps the pole-tip but does not extend as close to the media-facing surface as the pole-tip. In an alternative embodiment, not shown in this figure, the yoke layer 130 extends as close to the media-facing surface as the pole-tip 105, forming a T-shaped pole-tip when viewed from the